

ABSTRACT OF THE DISCLOSURE

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A method comprises positively displacing a first candidate luminescence material precursor from a dispenser to a first position of an array, displacing a second candidate luminescence material precursor from a dispenser mechanism to a second position of an array and simultaneously reacting the first and second candidates to produce a library of luminescence materials. A combinatorial high throughput screening liquid dispenser assembly comprises a battery of positive displacement driven dispensers for dispensing solutions of precursor luminescence materials, an array plate with wells to receive dispensed solution from the dispenser, a robotic positioning table supporting the array plate to position wells beneath respective dispensers and a controller to control dispensing of the solutions and positioning of the plate.

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